The Seasonal Cycle

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by **Al Larson aka Hans Hannula**

Any grade-school pupil can tell you when the seasons begin. In the northern hemisphere, generally, spring begins March 21, while summer begins June 21. Autumn begins September 23, and winter begins December 21. Actual dates may vary by one day in a particular year. So **step one** is simple.

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The physical reason behind the seasonal cycle is the tilt of the Earth's axis. The **23.5-degree tilt of the Earth's axis** causes more direct heating of the northern hemisphere in the summer, when the Earth tilts toward the sun. It causes less heating in the winter, when the Earth tilts away from the sun. This change in heating and cooling causes the seasonal weather patterns that we are familiar with [see Figure 1].
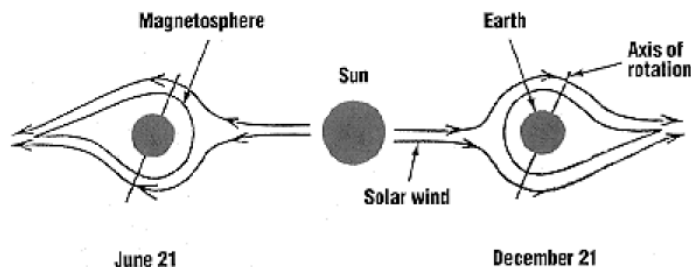
FIGURE 1: _Charged particles from the sun form a teardrop-shaped envelope about the globe called the magnetosphere._

Not so well known is the **effect of the seasonal variation on the Earth's geomagnetic field**. As the sun emits energy, charged particles flow outward, carried by the solar wind. As these particles sweep past Earth, they form a teardrop-shaped envelope around the globe called the magnetosphere.

There is a seasonal variation in two important parts of the magnetosphere. When the Earth tilts toward the sun **in the summer**, the **charged particles can more directly flow into the north pole**, where they affect the Earth's magnetic field. This effect is lessened when the Earth tilts away from the sun in the winter.

The second magnetic effect is on the magneto-tail, that part of the magnetosphere which streams away from the sunny side of the Earth. As the Earth tilts toward the sun, this tail "rides higher." As the Earth tilts away from the sun, the tail "rides lower." This affects how our moon, which moves in and out of the magnetosphere, interacts with the Earth's magnetic field.

So what does this have to do with stocks and commodities? **Scientific evidence suggests that these fluctuations in the Earth's magnetic field affect humans**. Studies show that magnetic field changes are linked to blood PH changes, which in turn cause mood swings. Perhaps the psychological mood swings of traders are also subject to these magnetic field changes.

More obviously, the seasonal cycle could be expected to affect crop prices, such as those of wheat, corn and other commodities. Similarly, with most businesses running on a quarterly profit cycle, seasonal

variations in the buying and selling of materials and equipment can be expected. Thus, on both a fundamental and technical basis, a trader can expect season price variations in stocks and commodities.

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To perform step 2, mark the dates of the cycle on a chart with solid dots, … and place them above or below the price as you estimate that price is high or low relative to what it was approximately one-fourth cycle earlier. Points do not necessarily have to alternate between high and low.

Now look for cycle "inversions." If two lows or highs occur in succession, the cycle has "inverted" between the points. **A normal inversion point is halfway through the cycle.**

For the seasonal cycle in 2007 these midpoints are February 3rd, May 5th, August 4th and November 4th [see Figure 2].

W.D. Gann's Natural Trading Days in 2007
calculated from

Spring Equinox					Perihelion			
Gann's Natural Trading Days of Seasonal Changes	**Year/8=45 days Year/16=22,5 days**	**Division Factor**	**weeks apart**		**Gann's Natural Trading Days of Seasonal Changes**	**Year/8=45 days Year/16=22,5 days**	**Division Factor**	**weeks apart**
2007-Mar-21 (Wed)	0.0	0	0.0		2007-Jan-03 (Wed)	0.0	0	0.0
2007-Apr-12 (Thu)	22.8	1/16	3.3		2007-Jan-25 (Thu)	22.8	1/16	3.3
2007-May-05 (Sat)	45.7	1/8	6.5		2007-Feb-17 (Sat)	45.7	1/8	6.5
2007-May-28 (Mon)	68.5	3/16	9.8		2007-Mar-12 (Mon)	68.5	3/16	9.8
2007-Jun-21 (Thu)	91.3	1/4	13.0		2007-Apr-04 (Wed)	91.3	1/4	13.0
2007-Jul-13 (Fri)	114.1	5/16	16.3		2007-Apr-27 (Fri)	114.1	5/16	16.3
2007-Aug-04 (Sat)	137.0	3/8	19.6		2007-May-19 (Sat)	137.0	3/8	19.6
2007-Aug-27 (Mon)	159.8	7/16	22.8		2007-Jun-11 (Mon)	159.8	7/16	22.8
2007-Sep-23 (Sun)	182.6	1/2	26.1		2007-Jul-04 (Wed)	182.6	1/2	26.1
2007-Oct-12 (Fri)	205.5	9/16	29.4		2007-Jul-27 (Fri)	205.5	9/16	29.4
2007-Nov-04 (Sun)	228.3	5/8	32.6		2007-Aug-19 (Sun)	228.3	5/8	32.6
2007-Nov-26 (Mon)	251.1	11/16	35.9		2007-Sep-10 (Mon)	251.1	11/16	35.9
2007-Dec-22 (Sat)	273.9	3/4	39.1		2007-Oct-03 (Wed)	273.9	3/4	39.1
2008-Jan-11 (Fri)	296.8	13/16	42.4		2007-Oct-26 (Fri)	296.8	13/16	42.4
2008-Feb-03 (Sun)	319.6	7/8	45.7		2007-Nov-18 (Sun)	319.6	7/8	45.7
2008-Feb-26 (Tue)	342.4	15/16	48.9		2007-Dec-11 (Tue)	342.4	15/16	48.9
2008-Mar-20 (Thu)	365.3	1	52.2		2008-Jan-03 (Thu)	365.3	1	52.2

March Equinox Mar-21 (Wed)	Partial Solar Eclipse Mar-19 (Mon)	Perihelion Jan-03 (Wed)	Rosh Hashana Sep 13 (Thu)
June Solstice Jun-21 (Thu)	Partial Solar Eclipse Sep-11 (Tue)	Aphelion Jul-07 (Sat)	Yom Kippur Sep 22 (Sat)
September Equinox Sep-23 (Sun)	Total Lunar Eclipse Mar-03 (Sat)		Thanksgiving Nov-22 (Thu)
December Solstice Dec-22 (Sat)	Total Lunar Eclipse Aug-28 (Tue)	© Georg Mayer / Time-Price-Research Ltd.	2007-Jan-24 (Wed)

That natural cycles invert disturbs many people, who naturally would prefer them to remain stationary. Some would like to believe that cycles are constant and never change. But cycles research shows that cycles do invert.

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